

REMARKS

In its current action, the Office points out that applicant's claims such as 6 and 7 lack "description as to how the kit is customized" and that therefore the claims read "on any electro- phoresis equipment" and not its particular use for the purposes of comparison patterns for the present invention.

In re-studying the Examiner's position, applicant now appreciates that his previous claims have not heretofore specifically included as a requirement, the use of *identical* customized electrophoresis chemistry kit reactions for deriving the spot pattern primary data obtained in the electrophoresis gel for *each* patient gene test for a specific gene. It is that use of identical electrophoresis chemistry for the derived patterns of each gene and gene test, together with their link to the TDGS platform, that applicant has found primary data patterns of generalized standardized form *directly* from this use of the customized test kit -- the raw data patterns being thus standardized and directly enterable in the data base *without requiring any image processing for standardization*.

In the patent to Bassett et al, on the other hand, the primary data is not yet standardized and certainly not automatically derived from any standardized experimental products such as standardized test kits and/or instrumentation.

In order to accomplish a kind of standardization of his profile data, Bassett is therefore required to process that raw data to adapt it for image presentation standardization. The processing comparison of Fig. 3 (308, 310, etc.) is one of the elements of the standardization process.

This is in direct contrast to applicant's profile image patterns that have already been standardized by virtue of the use of the identical kits for each patient gene electrophoresis test and the link to the TDGS platform. Thus applicant's method produces primary data that is already in standardized spot pattern format and is therefore directly enterable or useable for image spot pattern overlay comparison, and without requiring computer standardized processing as in the Bassett patent.

Applicant has accordingly amended claim 6 (rewriting it into independent form) to make clearer that the "identical gene-specific customized assay kit" is used "for generating each new gene fragment electrophoresis spot pattern"; and that the "resulting uniform two-dimensional spot pattern images just as they appear in the gel following two-dimensional electrophoresis" are of standardized format as a result of the identical kit use, such that "a positional shift of a spot in a new image spot pattern during such pattern overlay spot comparison can be detected".

By now reciting in claim 6 that each electrophoresis pattern used by applicant for spot comparison is in its unaltered raw pattern data in the gel, with the standardization resulting automatically from the use of such identical kit chemistry, for each test, it is believed that applicant has now clearly defined over the procedure of the patent to Bassett et al.

Furthermore, what Bassett teaches for comparison and intensity involves quantitative measurements of "cellular constituents" as represented by raw data shown in the prior art of his Figure 2. Applicant's data measures DNA sequence changes by

positional shifts of spots in the TDGS results, and this by optical overlay measures differences among individual of nuclear constituents among different individuals.

In applicant's invention, thus, a test is performed on a patient's gene and a spot image is produced in the gel under the control of the standardized kit and the TDGS process to provide a fixed image of spot patterns that is then adapted for overlay with similar spot patterns as to that gene developed for other patients. A physician can then submit an identical scan of his or her patient by way of overlay with the patterns within the data.

Bassett, on the other hand, has first to create a database rather than comparing direct raw test results.

Amended claim 6 specifies that applicant's optical comparison is for use of raw data image resulting just from standardized kit TDS electrophoresis of the gene and optical inspection of whether there is perfect overlay or aberration. The Bassett patent lacks any specific teaching or even utility in raw data image overlay, and this further distinguishes from applicant's technique.

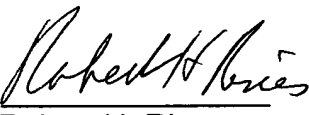
To simplify the issues, particularly in view of the finality of the rejection, applicant has cancelled claims 1-5 and 12-16, 19, 20 and 22, without prejudice, and has depended all the remaining claims 7-11 and 17, 18 and 21 from amended claim 6, they thus incorporating also the limitations in amended claim 6, above discussed, that distinguish from the Bassett patent.

Reconsideration and allowance are therefore believed to be in order and are accordingly respectfully requested.

Any costs incurred by this amendment including for any required extension fees, petition for which is hereby made, may be charged to the Deposit Account No. 18-1425 of the undersigned attorneys.

Respectfully submitted,

RINES AND RINES

By: 
Robert H. Rines,
Attorney for Applicant

Date: May 12, 2005
Rines and Rines
81 North State Street
Concord, N.H. 03301
Reg. No. 15,932
Tel. (603) 228-0121